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ES&H manual

Environment, Safety, and Health

Volume I

Part 2: ES&H Management Requirements

Document 2.5
Procured Services ES&H Program

(Formerly H&SM Supplement 1.12)

Recommended for approval by the ES&H Working Group

Approved by: Glenn L. Mara
Deputy Director for Operations

New document or new requirements

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☐ New document
☒ Major requirement change

Revision 1

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2.5

Procured Services ES&H Program*

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* **Major revision**

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Procured Services ES&H Program

1.0 Introduction

Lawrence Livermore National Laboratory (LLNL) has a Procured Services Environment, Safety, and Health (ES&H) Program, described in this document, to manage subcontractors that provide construction services, goods to be installed or set up, and industrial services such as equipment installation, repair, calibration, testing, road paving, and tree removal. This document describes how LLNL employees administer and implement the program to promote the prevention of injury or illness to subcontractor employees, protect Laboratory employees and resources, and prevent damage to the environment when subcontractors work at the Laboratory or at Laboratory-managed facilities. This document provides an overview of what subcontractors need to do to comply with the program; however, this information is intended solely to help LLNL organizations fulfill their responsibilities and is not intended to guide subcontractors. Although LLNL administers the program and performs various tasks to ensure subcontractor safety, subcontractors are responsible for the safety of their employees and shall have their own programs to do so.

This document applies to all LLNL authorizing organizations that purchase construction services, installed goods, or industrial services using:

- Subcontracts and purchase orders issued by the Procurement & Materiel Department.
- Releases or credit card transactions issued by a technical release representative (TRR).

A separate ES&H program applies to aviation service contracts as described in "Aviation," located at the following Internet address:

http://www-r.llnl.gov/es_and_h/policies/aviation_policy_2000.pdf

2.0 Hazards

A broad range of hazards is associated with construction, installed goods, and industrial services subcontracts. Depending on the type of subcontract, these may include hazards due to such energy sources as electricity, motion, gravity mass, chemicals, heat, radiation and pressure. (See document 3.1, “Safety Analysis Program“ in the *ES&H Manual* for more information.)

The hazards associated with procured services must be identified and appropriate controls implemented prior to these activities proceeding. The Responsible Individual and subcontractor are responsible for identifying the hazards associated with the planned work and implementing the agreed upon controls prior to the start of work.

3.0 Controls

LLNL's Procured Services ES&H program is designed to promote the safety of Laboratory and subcontractor employees. LLNL also uses work permits in some situations and stop-work procedures to control the hazards associated with procured services. Procured services include construction services, orders for installed goods involving industrial-type activities (e.g., delivery, electrical and mechanical installation, or calibration and testing of purchased equipment by the vendor or subcontractor), repairs, and contracted services performed at facilities not managed by the seller. These controls do not apply to supplemental labor-type contracts that come under the institutional ES&H controls, nor do they apply when purchasing goods with no service component.

LLNL's Procured Services ES&H program describes a process which identifies potential hazards before the work is performed and ensures that appropriate controls are applied while the work is performed. The program addresses the identification, documentation, review, acceptance, and inspection of hazards and provides controls to promote subcontractor safety. As appropriate, subcontractors shall submit ES&H documentation in accordance with this section before beginning work. LLNL reviews the subcontractor's safety documentation to ensure that the subcontractor's safety management system conforms to LLNL's Integrated Safety Management (ISM) requirements.

For construction projects, the additional control of a Construction Project ISM Team is used. The Construction Project ISM Team consists of a construction manager, procurement specialist, the appropriate ES&H Team leader (or designee), facility point of contact (FPOC), and the Plant Engineering construction safety specialist. In the case of directorate-managed projects, the directorate project coordinator takes the role of the construction manager. Decision-making authority for the Construction Project ISM Team shall rest with the representative of the organization having line authority for construction. This person is the construction manager for Plant Engineering projects and the directorate project coordinator for directorate construction projects.

3.1 LLNL ES&H Documentation for Procured Services

LLNL's documentation for procured services is based on a graded approach for identifying and communicating potential operational and work location hazards. The process ensures that the subcontractor, subcontractor employees, and authorizing organization are appropriately aware of the identified hazards as they plan work activities.

Figure 1 illustrates the decision-making process to determine the appropriate level of ES&H documentation and the individuals who decide the level of documentation and review its adequacy.

3.2 Procured Services with Non-Complex, Non-Hazardous Activities Where Only Negligible Location Hazards Are Present

No ES&H contractual documentation is required if both of the following conditions are met:

- The procured service activity is non-complex and non-hazardous.[1]
- The activity is performed in a work location where only negligible hazards exist.

A procured service activity when determined to not be complex or hazardous is then listed on the Designated Commercial Services List. The service activities on this list were reviewed by the, LLNL ES&H Teams and the LLNL Risk and Insurance Manager, with input from the programs, and determined to be non-complex and non-hazardous and to not require subcontractor insurance. Procured service activities that are both listed on the Designated Commercial Services List and performed only where negligible hazards are present do not require further ES&H documentation or review beyond the Responsible Individual's determination. Examples of the services on the Designated Commercial Services List include computer repair or installation of small desktop workstations, copy machine repair and maintenance, parcel delivery services, and training. The Procurement & Materiel Department maintains the Designated Commercial Services List and updates it after receiving appropriate approvals. Contact the Procurement & Materiel Department for additions to the list. A complete and current version of the Designated Commercial Services List is available at the following Internet address:

http://www-r.llnl.gov/pm/trr/index.html

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[1] As cited in Prime Contract: W-7405-ENG-48 (Contract 48) for LLNL, section I.074(i) Integration of Environment, Safety, and Health into Work Planning and Execution (Dec 2000).

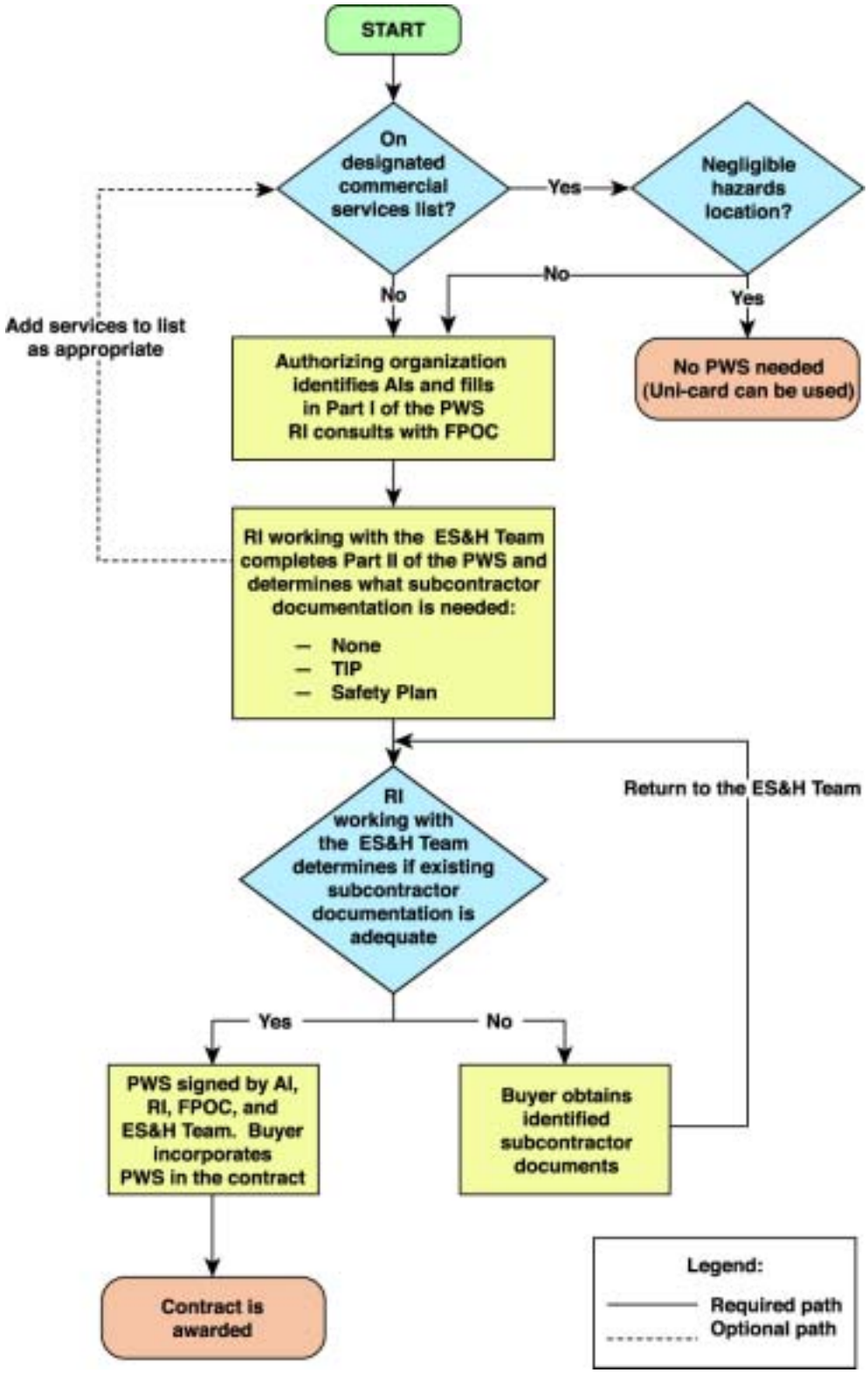

Figure 1. ES&H document preparation and review process of procured services and the Procured Services Work Sheet (PWS).

3.2.1 Exceptions to the Insurance Requirements

For legal purposes, subcontractors are required to carry insurance to work within LLNL nuclear facilities or any LLNL work area that generates airborne beryllium as indicated in Appendix C of UCRL-AR-144636, *LLNL Chronic Beryllium Disease Prevention Program (CBDPP) Implementation of 10CFR 850*. Exceptions to this insurance requirement can be made with the concurrence of the appropriate ES&H Team Leader and the Risk and Insurance Manager if only negligible hazards are present at the work location. This exception must be documented with a copy to the Technical Release Representative.

3.3 Procured Services Activities Requiring ES&H Documentation

Procured services that are complex activities, hazardous activities, or are performed in locations with hazards, require a Procured Services Work Sheet (PWS) to be completed.

3.3.1 Procured Services Work Sheet

The PWS identifies where the work is to be performed, provides a description of the services to be provided, and describes the potential work location hazards (see Appendix A). This ES&H information is supplied and reviewed by the Responsible Individual, the ES&H Team leader, the FPOC, the authorizing individual, and the subcontractor prior to commencing work to ensure that subcontractor employees and the Responsible Individual are aware of the controls prescribed to address the identified hazards as they conduct their work activities. See Figure 1 for a flow chart of the PWS process and Appendix A for a copy of the PWS form.

3.3.2 Determination of Site Visits or Additional Required Subcontractor Safety Documentation

The Responsible Individual in consultation with the ES&H Team (or designee) reviews each procured service activity that requires a PWS. Based on the subcontracted service, the hazards at the work location, and the actions taken to mitigate the hazards, the Responsible Individual in consultation with the ES&H Team (or designee) determines, and indicates on the PWS, whether a Task Identification Process (TIP) List and or a Safety Plan is also required to verify that the subcontractor's safety procedures conform to LLNL ES&H requirements. The Responsible Individual in consultation with the ES&H Team shall verify that the subcontractor's safety procedures conform to LLNL ES&H requirements before subcontracted work may begin at an LLNL-owned or -managed facility.

Site Visit. The Responsible Individual, procurement specialist, and the ES&H Team determines whether there is need for a site visit and may request that one be held before the start of onsite work. The site visit allows potential subcontractors an opportunity to become familiar with the project site and review the job scope, PWS, and other factors

that may affect bids and safety plans for a particular project. The Responsible Individual generally coordinates the site visit, and all individuals involved in the procurement process are invited to attend.

Task Identification Process (TIP) List. The TIP List is a questionnaire completed by the subcontractor listing typical hazards and concerns common to various work activities. A sample TIP List is included in Appendix B. The Responsible Individual may edit the sample TIP List to better represent the work requested. However, if the TIP List is edited, the ES&H Team shall review the TIP List to ensure that it still covers anticipated hazards.

Subcontractor Safety Plan. A written subcontractor safety plan is required for any onsite work activity that is listed in Document 2.2, "Managing ES&H for LLNL Work," Appendix A, in the *ES&H Manual* as an example of a work activity requiring a safety plan. A subcontractor safety plan is required if the ES&H Team (or designee) or the Responsible Individual determines one to be necessary to ensure that a subcontractor's safety procedures comply with LLNL ISM requirements. The plan shall include a description of the work to be performed, the safety measures required for the project, and controls for the general hazards associated with the work. Subcontractor safety plans shall also include any medical certifications [e.g., respirator approval, Personnel Security Assurance Program (PSAP), or Personnel Assurance Program (PAP)] or medical surveillance requirements (e.g., asbestos) that might be required. The ES&H Team shall assure that the subcontractor's plans conform to University of California contractual requirements, applicable U.S. Department of Energy (DOE) requirements, and applicable Occupational Safety and Health Administration (OSHA) requirements.

A subcontractor safety plan may be required, at the discretion of the Responsible Individual or the ES&H Team (or designee), if the work performed involves a safety significant disruption of normal activities in a facility. If the project will involve significant disruption of normal activities or significant facility preparation for the subcontracted activity, the FPOC should review the safety plan for facility interface concerns and issues. In addition, subcontractors may be asked to prepare certain job-specific submittals (e.g., an asbestos work plan or lockout and tagout procedure) for review by the Responsible Individual and the ES&H Team in addition to the TIP List. Table 1 gives an example of job-specific subcontractor activities requiring ES&H review.

3.3.3 Review and Acceptance of Subcontractor ES&H Submittals

TIP Lists, subcontractor safety plans, job-specific submittals, and the PWS are contractual documents and are incorporated, when appropriate, into the contract. The procurement specialist obtains these submittals as appropriate, and forwards them to the Responsible Individual and to the Hazards Control design review associate.

Table 1. Examples of subcontractor submittals requiring ES&H review.

Fire Protection
• Any submittals for testing or servicing of fire protection systems and alarm systems
Industrial Safety
• Fall protection plans • Scaffolding plans • Trenching or shoring plans • Lockout and tagout procedures
Industrial Hygiene
• Confined space entry plans • Asbestos work plans • Generation of airborne toxics (e.g., beryllium) • Lead work plans • Respiratory protection programs • Ventilation plans • Any work plans and material safety data sheets (MSDSs) involving chemical use (e.g., solvents, paints, epoxies, adhesives, or binders) • Personal protective equipment programs
Health Physics
• **Work plans involving any use of radioactive materials or radiation generating devices or work within a LLNL nuclear facility**
Environmental Protection
• Work plans involving wash down, spill prevention or response, or release of water or liquids to the ground (i.e., storm drains) or sanitary sewer • Work plans that may involve unscheduled or unapproved disturbance or removal of soil • Any work plan involving the release of chemicals or particulates to the air • Any work plan with activities that may lead to the generation of hazardous waste, resulting in the subcontractor's responsibility for handling and disposing of the waste

The Hazards Control design review associate coordinates the ES&H review of subcontractor submittals by evaluating, distributing, and tracking the submittals. The appropriate ES&H Team reviews the proposed work methods for compliance with applicable regulations and standards and evaluates related hazard mitigation actions. The ES&H Team leader and Responsible Individual shall concur with the subcontractor ES&H submittals prior to the work commencing. Written comments from either the ES&H Team or Responsible Individual shall be resolved in writing by the subcontractor. For construction projects, appropriate members of the Construction Project ISM Team shall review the submittals for operational and technical accuracy and completeness, and provide written comments as required. All ES&H comments shall be

resolved in writing by the subcontractor. Appropriate members of the Construction Project ISM project team shall review and concur with subcontractor safety submittal documents before the subcontractor may begin work.

Subcontractors are urged to provide the required ES&H submittals promptly to avoid potential delays in procuring services. The procurement specialist and ES&H Team shall work with subcontractors who may have provided deficient safety submittals. The subcontractor shall resubmit revised ES&H documentation for review and acceptance as outlined above. A copy of the approved subcontractor safety submittals is archived by the ES&H Team.

Once the ES&H Team and Responsible Individual accept the submittal package, the subcontractor shall implement the controls specified by the ES&H review.

3.3.4 Previously Submitted Subcontractor Safety Documentation

Subcontractor safety documentation previously submitted for a different service may be used to verify a subcontractor's safety procedures if the ES&H Team (or designee) determines that the prior service is similar to the current activity and that the documentation is sufficiently current. The ES&H Team (or designee) shall indicate the title and date of approved subcontractor safety documents on the PWS for incorporation in the subcontract. An electronic database of previously approved subcontractor safety submittals is maintained by the Hazards Control Department in the ES&H Electronic Library, available at the following Internet address:

http://www-r.llnl.gov/es_and_h/esh_library/

3.3.5 Identification of LLNL-Specified Work Location Training and Unique Standards for Subcontracted Activities

As part of the review for procured service activities, the ES&H Team (or designee) shall identify whether:

- The subcontractor needs to complete any LLNL-specific training for the work location before beginning work.
- LLNL requires compliance with any standards in addition to those standards normally followed by industry (e.g., industry OSHA requirements).

3.3.6 Additional ES&H Documents, Permits, Approvals, and Medical Surveillance

Depending on the activity, the Responsible Individual with support from the ES&H Team may require additional controls, permits, approvals, or medical surveillance. These additional controls are specified on the PWS. The Authorizing Individual shall

ensure that all permits, approvals, and medical surveillances are completed before permitting work to commence.

3.4 Blanket Order Subscription Process

Use of blanket orders to cover widely used procured services helps minimize duplication of operational, ES&H, and procurement documentation. Responsible Individuals should check the Procurement & Materiel home page to determine whether the service needed can be obtained under a blanket order. The Procurement & Materiel home page lists current blanket orders and the areas and organizations for which they have been approved and is available at the following Internet address:

http://www-r.llnl.gov/pm/

In general, the minimum activity criterion for establishing a blanket order is 25 transactions per year. However, even for fewer than 25 transactions per year, a program may, with payment of additional material processing charge (MPC), establish a blanket order if doing so would serve its purposes. The Procurement & Materiel Department advertises new blanket orders online as they are requested through TRRs to determine whether other organizations are interested in subscribing.

The ES&H controls for setting up a blanket order are the same as those for other procured services.

The key difference in the use of blanket orders as compared to subcontracts is the need to subscribe to the blanket order to obtain services. Once a blanket order is awarded and the subcontractor is informed work may begin, the assigned procurement specialist is the point of contact for information on how an organization can be added. Only authorized users who have subscribed to the blanket order may make releases against that order. The subcontract administrator maintains a list of authorized users for each blanket order in the Procurement & Materiel Department's Procurement and Receiving Information System (PARIS). The list is linked to the Total On-line Purchasing System (TOPS).

A Responsible Individual interested in subscribing to a blanket order shall complete a PWS that includes the location-specific hazards that may affect the procured services. After appropriate review and signing of the PWS, the Procurement & Materiel Department issues change orders to the procured services contract as required to ensure that the service work can be carried out safely for subcontractor personnel and adjacent LLNL activities.

For services procured under a blanket agreement, the Unicard may be used as a payment mechanism when authorized under the terms and conditions of the blanket order.

3.5 Other Types of Services Subcontracts

A variation of the processes and steps listed above is used for consultants, Supplemental Labor, Inter-University Transfers (IUTs), Memorandum Purchase Orders (MPOs), and similar subcontracts for people to work onsite as part of the regular workforce for LLNL operations. In such cases, the workers work under existing LLNL Integration Work Sheets (IWSs), safety plans, and other safety documents and requirements, as applicable.

The Responsible Individual shall prepare a PWS and shall list, in the "Subcontractor ES&H Documentation" section of the PWS, the LLNL ES&H control documents that are to govern the subcontracted activity. The LLNL ES&H control documents take the place of any required subcontractor-submitted TIP list or safety plan.

Before permitting work to commence, the Responsible Individual ensures that subcontractor employees have reviewed and are familiar with the LLNL ES&H control documents listed on the PWS. If any LLNL ES&H control document is modified or changed, the Responsible Individual is responsible for:

- Notifying the Procurement & Materiel Department of the changes, so that the changes can be incorporated into the subcontract.
- Providing a copy of the changes to the subcontractor employees.

3.6 ES&H Inspection Process

Based on the risk of the work, the Responsible Individual is expected to routinely inspect work sites to evaluate the subcontractor's performance. This evaluation shall be based on the subcontractor's ES&H submittals and the subcontractor's compliance with Laboratory, California, DOE, and OSHA requirements. During routine site inspections, LLNL employees may discuss site conditions and hazards with subcontractor personnel. If the discussions suggest any conflict with or change to the contract, the Laboratory employee shall immediately refer the matter to the Responsible Individual and ES&H Team Leader.

3.7 Stop-Work Procedures

Activities that are imminently dangerous to workers, the public, or the environment shall be stopped immediately by any Laboratory employee (not only members of ES&H organizations), supplemental labor employee, or contractor providing support to or operating an LLNL facility. LLNL's stop-work procedure (see Section 7.0 of Document 2.1, "Laboratory and ES&H Policies, General Worker Responsibilities, and Integrated Safety Management," in the *ES&H Manual*) applies to all work done at the Laboratory and is normally used only when an imminent danger situation exists.

Informal work interventions to correct minor conditions (e.g., to remind subcontractor employees to put on their hard hats or safety glasses) are not subject to the formal notification requirements of this section.

3.8 Accidents, Incidents, Injury, and Illness Reporting Procedures

When a serious incident occurs, call 911 from a Laboratory phone or 447-6880 from a cell phone. If the incident involves a subcontractor, immediately notify the Responsible Individual after reporting the emergency. In turn, the Responsible Individual shall promptly inform the area ES&H Team and appropriate program management of the incident. The ES&H Team shall notify the Hazards Control Department Office, Hazards Control Safety Programs Division, and the Health Services Department. (See Document 4.4, "Identification, Reporting and Tracking of Noncompliances with Nuclear Safety requirements " and Document 4.5, "Incidents--Notification, Analysis, and Reporting" of the ES&H Manual for further details.)

Examples of serious incidents include:

- A fatality or possible fatality
- Injury or illness that may result in lost or restricted workdays
- Any event that causes injury or illness to several employees
- A spill or leak of hazardous or regulated material to the environment
- Discovery of unexpected foreign material or waste during excavations and removals
- Significant property damage, program costs, or program delays.
- Unplanned utility system outage
- Significant electrical shocks
- Any equipment or vehicle accident
- Any event that could have a significant impact on LLNL employees, the public, or the environment

The authorizing organization shall ensure that the subcontractor ceases all work at the incident location and that the incident site is isolated and kept intact with all evidence preserved until the Authorizing Individual, with concurrence of the ES&H Team leader, releases the scene.

3.9 Offsite Procured Services Subcontracts

Subcontracted services performed offsite at a seller-owned or -controlled facility do not fall under the LLNL ISM requirements. However, subcontracted services performed at an offsite location where LLNL has management responsibility for the work location shall comply with ISM and applicable ES&H requirements of LLNL. (See Table C-1 of Appendix C for assistance in making a determination of management responsibility for work locations.)

For subcontracted services performed at an offsite location where LLNL does not have management responsibility for the work location (e.g., other government facilities, universities, or third-party work locations), only a PWS and associated subcontractor submittals as determined by the ES&H Team are required. The PWS shall disclose, to the subcontractor, any work location hazards known to LLNL. FPOC signature or review of the PWS is not required for such activities.

4.0 Responsibilities

Specific responsibilities for the purchase of construction services, installed goods, and procured services are listed under each title below.

4.1 Authorizing Individual

The authorizing individual assigned by the authorizing organization shall:

- Confirm that appropriate controls for the proposed procured service activity are in place.
- Authorize the work to proceed after the procurement specialist issues the subcontractor a notice to proceed and all applicable conditions have been met and the agreed upon controls have been implemented.

4.2 Responsible Individual

The Responsible Individual shall:

- Determine whether only negligible hazards are present at a work location.
- Initiate a PWS when appropriate.
- Ensure that all appropriate ES&H measures are taken to protect workers during the performance of subcontracted work.
- Define and identify the work location of the subcontracted activity, and whether only negligible hazards are present at the work location.

- Determine whether a site visit by the subcontractor is needed.
- Verify the subcontractor safety procedures conform to applicable LLNL ES&H requirements.
- Working with the ES&H Team, review and accept subcontractor ES&H submittals.
- Identify actions to be taken to mitigate facility hazards and the party responsible to perform each mitigation action.
- Provide sufficient resources for the defined work to be performed safely.
- Identify whether a subcontractor needs LLNL-specific training for the work location.
- Notify the Procurement & Materiel Department of changes to ES&H documents incorporated in subcontracts.
- Ensure that the PWS is authorized and the subcontractor does not begin work until all of the applicable conditions have been met and the agreed upon controls have been implemented.
- Issue a stop-work order for a portion of the work area or the entire work area when the work area or work practices are not managed or maintained according to the subcontractor's safety submittals.
- Ensure that the subcontractor’s activities do not present unacceptable risks to LLNL employees or property.
- Notify LLNL management for significant accidents or incidents and emerging trends in accident experience.

4.3 Procurement Specialist

The procurement specialist shall:

- Serve as a member of the Construction Project ISM team.
- Obtain a completed PWS from the Responsible Individual or TRR before permitting work to commence onsite.
- Ensure, as required, that subcontractors have on file or submit an appropriate safety plan, job-specific submittals, or TIP List.
- Route, as appropriate, subcontractor safety documentation to the Hazards Control design review associate and Responsible Individual.
- Work with subcontractors to provide adequate safety submittal documentation.

- Notify subcontractors that onsite work may begin only after the Responsible Individual and ES&H Team accept the subcontractor safety submittals.

4.4 Hazards Control Department

The area ES&H Team and the Hazards Control design review associate provide ES&H support for the Procured Services Subcontractor ES&H Program. The Hazards Control design review associate coordinates ES&H Team reviews of documentation, while the ES&H Teams provide documentation reviews and field oversight of subcontractor activities.

4.4.1 ES&H Team

The ES&H Team shall:

- Review the proposed work methods for compliance with applicable regulations and standards and evaluate related hazard mitigation actions.
- Support the RI to identify Work Smart Standards (WSS) beyond OSHA standards, LLNL subcontractor training, and any other ES&H documentation, permits, approvals, or medical surveillances required.
- Support the RI to determine the subcontractor safety documentation needed to adequately evaluate a subcontractor's safety procedures.
- Assist in the evaluation of exceptions to the insurance requirements needed for work in a nuclear facility or a facility that generates airborne beryllium.
- Provide concurrence with subcontractor submittals.

4.4.2 Hazards Control Design Review Associate

The Hazards Control design review associate shall:

- Evaluate, distribute, track, and coordinate the ES&H review of procured services documents (e.g., scope of work, specifications, drawings, procedures, and subcontractor ES&H submittals).
- Distribute submittals to the appropriate ES&H Team for review.
- Ensure that all ES&H review comments and concerns have been satisfactorily resolved in writing by the subcontractor before the ES&H Team accepts subcontractor submittals (see Figure 1).
- Update the ES&H Electronic Library database of subcontractor safety submittals after the submittals are approved by LLNL.

4.5 Construction Project ISM Team

The Construction Project ISM team, led by the Construction Project Manager, shall review and concur with subcontractor safety documentation before subcontracted work commences. The Construction Project Manager shall notify LLNL management of significant accidents or incidents and emerging trends in accident experience.

4.6 Risk and Insurance Manager

The risk and insurance manager shall:

- Concur from an insurance position whether items should be added to the Designated Commercial Services List.
- Evaluate exceptions to the insurance requirements needed for work in a nuclear facility or a facility that generates airborne beryllium from an insurance stand point.

4.7 Facility Point of Contact

The FPOC shall:

- Assist the Responsible Individual to determine whether only negligible hazards are present at a work location.
- Serve as a member of the Construction Project ISM Team.
- Review and sign the PWSs.
- Review subcontractor safety submittals for facility impact and interface issues.
- Ensure that subcontractor work is within the authorization basis for the facility.

4.8 Subcontractors

Subcontractors are responsible for:

- Performing work in accordance with subcontract requirements, safe work practices, and applicable state and federal regulations.
- Providing appropriate ES&H documentation as required by LLNL.
- Ensuring compliance with the safety requirements by all lower-tier subcontractors.
- Informing subcontract employees of hazards and protective measures.

- Reporting accidents and injuries according to LLNL requirements.
- Providing employees with all necessary PPE and medical certification and surveillance.
- Providing qualified and trained workers.

5.0 Work Standards

5.1 Work Smart Standards

DOE Order 440.1A, "Worker Protection Management for DOE Federal and Contractor Employees," Attachment 2, "Contractor Requirement Document," Sections 1–11, 13–18 (delete item 18.a), 19 (delete item 19.d.3), and 22.

10 CFR 835, "Occupational Radiation Protection."

29 CFR 1910, "Occupational Safety and Health Standards."

29 CFR 1926, "Safety and Health Regulations for Construction."

6.0 Resources for More Information

6.1 Contacts

- Area ES&H Team.
- Health Services Department.
- Procurement & Materiel Department.

6.2 Lessons Learned

For Lessons Learned, refer to the following Internet address:

http://www-r.llnl.gov/es_and_h/lessons/lessons.shtml

6.3 Other Sources

UCRL-AR-144636, LLNL Chronic Beryllium Disease Prevention Program (CBDPP), revision 1, August 4, 2000.

Appendix A

Procured Services Work Sheet (PWS)

Instructions: Complete the PWS as follows:

PWS Part I—Completed by the Responsible Individual

The Responsible Individual initiates the ES&H procured services documentation using a PWS. The Responsible Individual must provide the following information on the PWS:

Management Chain. The Responsible Individual lists the management chain from the Responsible Individual to the Associate Director.

Location. The Responsible Individual identifies where the work is to be performed, the FPOC responsible for the location, and the appropriate ES&H Team assigned to the location. The Responsible Individual shall also indicate whether the work is to be performed at an offsite location at which LLNL has management responsibility.

Scope of Work. The Responsible Individual completes the scope of work statement and shall define the work activity in sufficient detail to allow for informed review by the ES&H Team, FPOC, and subcontractor. The scope of work statement may be as short as one paragraph, depending on the complexity of the work activity.

Hazard Disclosure Statement for the Work Location. The Responsible Individual identifies what hazards exist at the work location, what actions are to be taken to mitigate work location hazards, and who is responsible for each mitigation action.

Mitigation Actions. The Responsible Individual describes as appropriate what actions will be taken to mitigate facility hazards and whether LLNL or the subcontractor is responsible for each mitigation action.

PWS Part II—Completed by the Responsible Individual in Consultation with the ES&H Team

Except for procured services listed on the Designated Commercial Services List and performed in a work location where only negligible hazards are present, the Responsible Individual and the ES&H Team (or designee) reviews each procured service activity. Based on the subcontracted service, the hazards at the work location, and the actions taken to mitigate the hazards, the Responsible Individual in consultation with the ES&H Team (or designee) completes Part II of the PWS and provides information regarding:

- Subcontractor ES&H documentation requirements.

- Identification of LLNL-specified work location training requirements.
- Unique LLNL standards applicable to the subcontracted activities.
- Additional ES&H documents, permits, approvals, and medical surveillance required.

PWS—Signatures

Before allowing work to commence, the Responsible Individual shall ensure the following persons appropriately sign the PWS:

- Responsible Individual—Stating that all hazards have been reviewed and agreeing to implement controls identified in the PWS.
- FPOC—Concurring that the subcontracted work falls within the safety envelope of the facility or area and may commence once authorized.
- ES&H Team leader (or designee)—Concurring that the hazards and controls have been properly identified and that work may commence once authorized.
- Authorizing Individual—Stating that the controls have been confirmed and that the work is authorized once the Procurement & Materiel Department issues a notice to proceed.

Procured-Services Work Sheet (PWS)

Requisition #_____ **TRR Name:** _____

Part I Authorizing Organization Information (completed by RI)

Management Chain: Name of Responsible Individual (RI), Alternate RI, names of line managers between the RI and Authorizing Individual (AI), name of AI, name of the Authorizing Organization and title of AD :_____

Location **Room(s)** **FPOC** **ES&H Team** **Est. Completion Date:**_____

LLNL has management responsibility for an off-site location: ☐ Yes ☐ No

Or applies to: ☐ All LLNL ☐ Site 200 ☐ Site 300 ☐ Nevada Test Site ☐ Off-site Location:_____

Scope of Work Statement: (Describe the work activity, emphasizing the safety aspects of the work). or ☐ scope of work attached

Hazard Disclosure Statement for the Work Location:

☐ There are only negligible hazards present at the work location.

☐ Hazards are present in the facility or at the work location beyond a negligible level. (Describe briefly for the subcontractor the hazards and their location identified as part of the facility in which the work will be done.) or ☐ see attached

Mitigation Actions: Describe the actions taken to mitigate facility hazards. Note: Designate the party responsible for each required mitigation action. (Subcontractor or UC).

Part II ES&H Review (completed by RI with ES&H Team)

Subcontractor ES&H Documentation Required: RI to contact ES&H Team prior to Subcontractor starting work. ☐ Yes ☐ No

1. ☐ No safety documentation required.
2. ☐ Subcontractor ES&H TIP List required. If the document is already on file, provide: Project Title/Date
3. ☐ Project Safety Plan required. If the document is already on file, provide: Title/Date_____

LLNL Training Requirements: List required LLNL training subcontractor must complete. (Note if not applicable to all participants.)

Additional Standards: List required standards different from OSHA requirements.

ES&H Documents/Permits/Approvals/Medical Surveillance: Additional controls are as follows (to be obtained by LLNL, not the subcontractor):

☐ Other ES&H Documents needed: _____

☐ LLNL Work Permits/Approvals:_____

☐ Agency Work Permits/Approvals:_____

☐ Medical Surveillance/Certification:_____

LLNL Signatures

As the RI, I have reviewed the hazards and agree to implement the controls identified in this PWS:

Responsible Individual(RI): _____ Date: _____

The proposed work is compatible with co-located activities and falls within the safety envelope of the facility.

FPOC Concurrence:_____ Date:_____

FPOC Concurrence: _____ Date:_____

The hazards and controls have been properly identified and the work may commence once authorized:

ES&H Concurrence:_____ Title:_____Date: _____

Approval: The controls have been confirmed and this proposed activity is authorized to proceed once the "notice to proceed" has been given from the Procurement Specialist.

Authorizing Individual (AI): _____Date: _____

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Procured-Services Work Sheet
(PWS)

To be completed by the ES&H Teams or their Designee in consultation with the RI

☐ ***Other ES&H Documents needed:***
- ☐ *Safety Basis document update needed (e.g., USQ or other)*
- ☐ *Engineering safety note needed*
- ☐ *NEPA document needed* _____
- ☐ *Job Hazard Analysis needed (JHA)* _____
- ☐ *Other* _____

Attach required documentation or list where the documents can be found: _____

☐ ***Additional Required Work Permits/Approvals: (to be obtained by LLNL, not the subcontractor)***
- ☐ *Building and/or equipment drain*
- ☐ *Interior concrete floor, wall, and ceiling penetration*
- ☐ *Asbestos permit*
- ☐ *Confined space permit*
- ☐ *Hot work*
- ☐ *Hazardous work permit (ES&H Manual Doc. 17.1 Sec. 3.18)*
- ☐ *Lead work*
- ☐ *Radiation work permit*
- ☐ *Roof access*
- ☐ *Soil excavation, grading, and/or drilling permit*
- ☐ *CMID tag needed approval*
- ☐ *Waste minimization analysis needed*
- ☐ *Energy efficiency or water conservation analysis needed*
- ☐ *LLNL Committee approval (committee name)* _____
- ☐ *Other* _____

☐ ***Agency Work Permits/Approvals:***
- ☐ *Special air permit/exemption*
- ☐ *NESHAP*
- ☐ *Special waste permit/exemption*
- ☐ *Special water discharge permit/exemption*
- ☐ *Radioactive waste*
- ☐ *Fish and Wildlife Consultation*
- ☐ *Other:* _____

☐ ***Medical Surveillance/Certification:*** *Note: The following medical surveillance/certifications may be required by law. It is the responsibility of the subcontractor to obtain unless otherwise negotiated.*
- ☐ *Asbestos exposure potential*
- ☐ *Beryllium exposure potential*
- ☐ *Biohazard exposure potential*
- ☐ *Carcinogens exposure potential*
- ☐ *Hazardous Waste Worker*
- ☐ *Hearing Conservation required*
- ☐ *Lead exposure potential*
- ☐ *Commercial Drivers License required*
- ☐ *Respirator required*
- ☐ *Laser Eye exposure potential*
- ☐ *Other* _____

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Appendix B

Task Identification Process (TIP) List

Services or Installation of Goods
(Prepared by the Subcontractor)

Subcontract Title_____

Subcontracting Firm_____ **Subcontract No.**_____

Subcontractors and vendors providing services, including the installation of purchased goods, are required to complete a TIP List. This list does not include every Environment, Safety, and Health- (ES&H-) related concern at LLNL; instead, it is intended to highlight major concerns common to most on-site service activities.

Fire Protection

Will the job involve welding, soldering, or torch cutting? Yes __ No __ N/A __

Will flammable/combustible liquids be used or stored? Yes __ No __ N/A __

Will temporary heating devices be used? Yes __ No __ N/A __

Will water and/or fire extinguishers be provided on the job site? Yes __ No __ N/A __

(Examples include any work involving solvents, fuels, soldering, torch cutting, or heating devices; e.g., gasoline and diesel fuel delivery services, high-voltage cable splicing services, elevator repair services, flooring services, cafeteria hood cleaning and fire suppression service, and water pipe repair services.)

Electrical Safety

Will lockout and tagout be required? Yes __ No __ N/A __

Will work be performed on or near energized equipment, lines, or circuits? Yes __ No __ N/A __

Note: If yes, no work may be performed until reviewed and approved by LLNL/Hazards Control Department.

If yes, describe:

_____

_____

_____

(Examples of this work include industrial shredder maintenance, power machinery repair services, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services.)

Overhead Power Lines and Hidden Utilities

Will hazards associated with overhead power lines (e.g., will clearance) be an issue? Yes __ No __ N/A __

Will potential underground or hidden utilities need to be located on the job site? Yes __ No __ N/A __

If yes, how will this be accomplished and who will do it (e.g., LLNL, subcontractor, other)?

_____

_____

_____

[Examples of this work include tree pruning services, tree removal/relocation/replacement, underground utility identification services, concrete sawing and removal services, drill rig operations (e.g., soil characterization services, water well drilling, geotechnical investigation), and wall drilling.]

Electrical Power Transmission and Distribution

Will there be repair or maintenance of transmission and distribution lines and equipment? Yes __ No __ N/A __

What methods will the subcontractor use to prevent accidental contact with energized lines or equipment?

_____

_____

_____

Will workers be using nonconductive tools? Yes __ No __ N/A __

(Examples of this work include high-voltage cable splicing services, telecommunications upgrade services, and elevator repair services.)

Powder-Actuated Tools

Will powder-actuated tools be used? Yes __ No __ N/A __

Are operators trained and qualified? Yes __ No __ N/A __

(Examples of this work include awning/canopy installation, tent installation, and furniture/fixture installation.)

Fall Protection

Will workers be exposed to a potential fall in excess of 6 feet? Yes __ No __ N/A __

If yes, describe how workers will be protected:

_____

_____

_____

(Examples of this work include tree pruning, window and ledge cleaning, window replacement, high-voltage cable splicing services, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services.)

Scaffolding and Ladders

Will scaffolding or ladders be used and approved worker access be provided? Yes __ No __ N/A __

Will scaffolding or ladders be exposed to wet or slippery conditions? Yes __ No __ N/A __

Will scaffolding or ladders need to be secured to the building? Yes __ No __ N/A __

Does the subcontractor have a designated supervisor for the work? Yes __ No __ N/A __

(Examples of this work include window cleaning, tree pruning, window replacement, roll-up door replacement, tent installation, and awning/canopy installation.)

Demolition and Salvage

Does the subcontractor have a demolition/salvage plan? Yes __ No __ N/A __

How will passersby be protected from potential hazards?

_____

_____

_____

How will materials be lowered?

_____

_____

_____

Have the demolition materials been evaluated for reuse or recycling?

_____

_____

_____

Cranes, Forklifts, and Manlifts

Will cranes, forklifts, manlifts, or other lifting equipment be used? Yes __ No __ N/A __

Has lifting and rigging equipment been inspected and certified as required? Yes __ No __ N/A __

Does the subcontractor have a designated competent operator? Yes __ No __ N/A __

Will lifting attachments be used in conjunction with forklifts that are approved for use by the forklift manufacturer? Yes __ No __ N/A __

(Examples of this work include heavy or oversized goods delivery, tree pruning, overhead bridge crane maintenance/repair, high-voltage cable splicing, and roll-up door replacement.)

Motor Vehicles and Heavy Equipment

Will the subcontractor be using motor vehicles or heavy equipment onsite? Yes __ No __ N/A __

Will all operators have valid state driver's licenses? Yes __ No __ N/A __

Will vehicles, including safety features (e.g., rollover protection), be inspected? Yes __ No __ N/A __

[Examples of this work include delivery of goods, personnel transportation services, trailer relocation services, oil/water pumpout and recycling services, asphalt grinding and asphalt sealing services, portable toilet services, weed/brush abatement and mowing services, landscape hydroseed services, drill rig operations (e.g., soil characterization services, water well drilling), tree stump grinding, concrete sawing and removal, and scrap iron removal services.]

Ergonomics

Will potential ergonomic injuries be controlled? Yes __ No __ N/A __

Confined Spaces

Will work be performed in vaults, manholes, trenches, or tanks more than 4 feet deep? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Does the subcontractor have a written confined space work program? Yes __ No __ N/A __

Will work involving welding, torch cutting, brazing, grit blasting, or any machinery be performed in or near confined spaces? Yes __ No __ N/A __

Will painting, application of other coatings, or use of chemicals, solvents, combustibles, or similar hazardous materials be performed in confined spaces? Yes __ No __ N/A __

(Examples of this work are many and varied; any service that could involve working in vaults, pits, or tanks; e.g., cathodic protection services, high-voltage cable splicing services, telecommunications upgrades, construction inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services.)

Respiratory Protection

Will the job involve materials or processes requiring respiratory protection? Yes __ No __ N/A __

Does the subcontractor have a written respiratory protection program? Yes __ No __ N/A __

[See sections on Confined Spaces, Chemicals, Asbestos, Lead, and Silica Dust (OSHA considers dust masks respirators).]

Personal Protective Equipment

Will the subcontractor provide workers with appropriate personal protective clothing and equipment (e.g., leather gloves, hard hats, eye protection, face protection, safety shoes, hearing protection, or chemical gloves or clothing)? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Does the subcontractor have a written personal protective equipment program? Yes __ No __ N/A __

(Examples of this work include most industrial-type services or installations.)

Asbestos-Containing Materials

Is there a possibility that asbestos containing materials (ACM) will be encountered? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Does the subcontractor have an asbestos work program? Yes __ No __ N/A __

Has the local air district been notified of asbestos work per their requirements (as applicable.)? Yes __ No __ N/A __

(Examples of this work include disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up services.)

Lead-Containing Materials

Is there a possibility that lead-containing materials will be encountered? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Does the subcontractor have a lead work program? Yes __ No __ N/A __

(Examples of this work include disturbance of lead-based paint, particularly in older facilities. Lead is also present in certain electrical circuitry and metal alloys; e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services.)

Chemicals, Solvents, Fumes, Vapors, and Dusts (OSHA PELs and ACGIH TLVs apply)

Will work involve chemicals, solvents, painting, welding, torch cutting, brazing or grit blasting? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Will MSDSs be submitted for all potentially hazardous chemicals and solvents? Yes __ No __ N/A __

Will emergency eyewashes and showers be available to employees as necessary? Yes __ No __ N/A __

Will ventilation requirements be reviewed to preclude exposure to employees? Yes __ No __ N/A __

Are all paints in compliance with VOC limits established by the air district? Yes __ No __ N/A __

Will an LLNL environmental analyst evaluate all grit blasting waste before disposal? Yes __ No __ N/A __

[Examples of this work include operations involving cleaning solvents, adhesives, paints, binders; e.g., solvent recycling services, oil pumpout and recycling services, diesel fuel filtration services, emergency hazardous waste removal/ decontamination services, storage tank clean-out services, countertop installation (epoxies), portable toilet services, and flooring.]

Silica Dust

Will work involve jackhammering, rotohammering, drilling, grinding, or another disturbance of concrete that might create silica dust? Yes __ No __ N/A __

(Examples of this work include installations, pavement/concrete grading and paving, and concrete sawing and removal services.)

Noise

Will employees be exposed to high noise levels on this job? Yes __ No __ N/A __

Does the subcontractor have a written hearing conservation program? Yes __ No __ N/A __

(Examples of this work include installations and heavy equipment operation.)

Heat Stress

If heat stress is an issue, will heat stress monitoring be routinely performed in accordance with the ACGIH TLVs? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Will a rest area be provided in a cooler environment (e.g., utilizing shade, fans, or air conditioning)? Yes __ No __ N/A __

Will the subcontractor provide liquid replenishment at the job site? Yes __ No __ N/A __

Will a work/rest regimen be enforced? Yes __ No __ N/A __

Has training on recognizing the signs and symptoms of heat stress and heat stroke been provided to workers and supervisors? Yes __ No __ N/A __

Radiation and Laser Safety

Will radioactive material/sources be used onsite? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Will radiation-producing equipment be used onsite? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Will special radiation dosimetry be required (other than normal LLNL-issued dosimeters)? Yes __ No __ N/A __

Will an LLNL Radiation Work Permit for Visitors be required? Yes __ No __ N/A __

Will class 3 or 4 lasers be used, repaired, or calibrated onsite? Yes __ No __ N/A __

Will the use of alignment lasers be necessary to perform work? Yes __ No __ N/A __

(Examples of this work include radiography services and equipment/surface alignment services.)

Environmental Compliance

Will a 10-day notification to the local air district be required? Yes __ No __ N/A __

Will all gasoline- or diesel-powered portable electrical generators be rated below 250 horsepower? Yes __ No __ N/A __

Will an LLNL environmental analyst evaluate all excess equipment and debris waste to determine proper disposal? Yes __ No __ N/A __

Will adequate measures be taken to prevent discharge of hazardous and regulated materials to the environment? Yes __ No __ N/A __

Will equipment and vehicles be inspected daily for leaks of fuel, engine coolant, and hydraulic fluid? Yes __ No __ N/A __

Storm Water Pollution Prevention Plan (SWPPP)

Will all work be performed in compliance with the LLNL SWPPP? Yes __ No __ N/A __

Will a project-specific SWPPP be submitted to the LLNL ES&H Team for review? Yes __ No __ N/A __

Will all concrete mixing, concrete cutting, and equipment-rinsing wastewaters be discharged to a low area or into a constructed basin for dewatering? Yes __ No __ N/A __

(Examples of this work include concrete sawing and removal and hosing down equipment/work surfaces during cleanup.)

Additional Concerns

Does the subcontractor recognize any other potential ES&H concerns that could be associated with this work? Yes __ No __ N/A __

If yes, describe:

_____

_____

_____

Describe mitigation measures:

_____

_____

_____

TIP List completed by:

Subcontractor's signature	Date
Title/Firm	Phone

Subcontractor's designated person responsible for onsite environment, safety, and health:

Name	Title
Firm	Phone

Appendix C

Offsite Procured Services

Table C-1 is used to help determine whether or not LLNL has management responsibility for a work site.

Table C-1. Answering the question, Does LLNL have management responsibility for work performed by an LLNL contractor at an off-site location?

Type of Access	Definition	Yes, LLNL has management responsibility	No, LLNL does not have management responsibility
Work Area Control	LLNL owns or leases the realty where work is performed (e.g., LLNL Washington D.C. Office, NIF Warehouse).	X	
	LLNL has an easement that includes the work area.	X	
Access Agreements	LLNL has an easement or agreement permitting access to a work area under LLNL control.	X	
	LLNL has an easement or agreement (license[a]) permitting access to a work area NOT under LLNL control [e.g., license to mount an antenna in a state-controlled antenna farm on Mt. Diablo, the Walnut Creek Genome Facility, a DOE management and operating (M&O) contract].		X
Work Activity Control	LLNL has University of California employees directing the work of a vendor at an offsite location (regardless of who controls the work area).	X	

[a] A license does not convey control of the realty to LLNL reality.